Original article

Social and gender biases in HIV /AIDS care in India

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Abstract

To understand the socio-psychological aspects of HIV transmission and gender and caste based AIDS care in India, 100 HIV positive patients and their spouses or sexual partners were included in this study. The individuals were interviewed for their pre-or extramarital sexual exposure with suspected HIV positive persons. They were also interviewed about the barriers, if any, they used, and change in their sexual behaviour with their spouses after they were tested HIV positive. All except three were males who were first detected HIV positive, while 3 women were found HIV positive first and subsequently their male partners were included in the study. Eighty of 97 (82.4%) males admittedly acquired HIV through heterosexual route. Of the 80 males, 60 (75%) acquired HIV infection from organised CSWs and 20 from casual sex partners. Many of these acquired the infection just before their marriages. More than half of these males were infected during only one or two sexual encounters. Sixty out of 75 (80%) married males continued to have sex even after knowing their HIV positive status. One male and six female spouses did not get infected even after multiple insertive unprotected sex. The average life span after the diagnosis of HIV infection in Indian males without specific treatment was 4.5 ± 3.5 yr while in women it was 3.5 ± 2.0 yr, indicating fast progression of AIDS in females, most probably due to gender bias in access to treatment, nutrition, care and also due to hormonal differences. Pulmonary tuberculosis was most common and first clinical presentation of HIV associated opportunistic infection. The study also showed that due to ignorance majority of husbands do not share their HIV positive status with their wives and continue to have unsafe sex.

Keywords: AIDS, India, gender bias, disease progression, caste and HIV spread

INTRODUCTION

HIV/AIDS epidemic has left no country untouched. India had its first case HIV/AIDS in 1986. Since then number of HIV infected and AIDS cases has been rising and at the end of 2004 an estimated number of HIV infected people in India had gone to 5.31 million[1]. However, the AIDS pandemic has led us to see the inextricable connection between health and human rights. Families deprived of their rights-the right to food, clean water, medical care, education, training, and to protect themselves from violence and sexual abuse and to vote for their leaders-are the people most likely to be struck hardest by HIV and AIDS. In many poverty stricken families, particularly when bread earning males are not there, females are forced to sale sex due to need of having food and livelihood[2]. Young girls and women are sometimes sold by their parents and relatives and thrown in prostitution to earn food for them. In India more than 80% CSWs are forced in this profession while they were fond looking for livelihood or food for herself or her dependents. Asia in general and Indian subcontinent in particular the males have predominance over females. Recently HIV transmission has shown a new trend in its spread from urban to rural India. Here also women are at the receiving end. The promiscuous husbands transmit HIV to their pregnant

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wives and finally to new born babies.

The social imbalance has led to exploitation of women at all fronts including politics. In a four stepped Hindu varna-vyavastha (caste system) which divides Hindus in caste Hindus and people outcaste Hindus (dalits), place of women is one step below her male counterpart in the same caste. Accordingly, the position of a male dalit is below females of lowest caste Hindus and position of a dalit woman is equal to cow and vulnerable for gang rapes and sexual abuses leading to HIV and other STD transmission in these poor women. The condition of women has always remained and still remains the worst hit on all fronts including health sector where she gets last priority in the family for treatment and care.

In this study we present our data on this gender bias and negligence in AIDS care by their family members and by the society.

PATIENTS AND METHODS

To find the trend of HIV transmission and gender based comparative health care, a prospective study was carried out from 1999 -2001 at the All India Institute of Medical Sciences, New Delhi, India. The patients who attended our voluntary HIV testing cum counseling clinic were included. In this 100 Indian adult male and female patients who were first tested HIV positive and equal number of their spouses or sexual partners (if living together) were recruited after informed consent. They were first counseled and interviewed to know the number of sexual encounters they had with a sex partner who was later on found to be HIV positive or was suspected to be the source of his/her HIV infection. Their marital status and in those who were married, an average number of monthly sexual acts with their spouses was also noted. The patients were also asked the reason to go for pre-or extramarital relationship before they were first detected HIV positive and whether they used any barrier or not. They were also asked about their sexual behaviour with their spouses after knowing their HIV status. All patients were followed up regularly physically or by telephone or letters

HIV seropositive status was confirmed in all patients using Innotest EIA antibody detection kit (Innogenetic, N. V., Belgium) and Detect-HIV ELISA test (BioChem Immuno Systems Inc., Canada), rapid HIV spot test (Genelabs Diagnostics, Singapore) and finally by line immunoassay (Innolia, Innogenetic, N. V., Belgium) or Recombinant Immunoblot Assay (RIBA). For estimating the disease outcome, the period from the date of suggestive history of exposure to HIV infection till the date of developing first clinical manifestation of opportunistic infection (AIDS) and death were independently calculated.

Of the 97 HIV seropositive male patients, 49 consented to donate their semen samples. The semen plasma after liquefaction was separated out and tested for various anti-HIV antibodies using the Recombinant Immunoblot Assay (RIBA). HIV p24 antigen in serum and semen plasma samples was detected and quantified by enzyme immunoassay (EIA) (Organon-Teknika, The Netherlands).

RESULTS & DISCUSSION

Our patients represented all regions of India and their age ranged from 16-55 years with mean age of 26 years. Of the total 100 patients 97 were males and 3 females who were first detected HIV positive. Eighty (82.4%) males were married and 17 were single or unmarried. Two of the three women gave history of blood transfusion during delivery and in one woman no obvious source could be ascertained except history of forceps delivery. Spouse of this woman was found HIV negative in spite of having unprotected sex[3] while spouses of rest 2 females were also found to be HIV positive, hence it was difficult to identify the source of HIV infection in these women. There were a total of 7 discordant couples. This included 6 (8.9%) female spouses and 1 male spouse who were found HIV negative repeatedly.

Post test counseling data showed that 80 out of 97 males (82.5%) admitted high risk behaviour, as expected and most probably they acquired infection heterosexually of which 60 (75% of the married men) males got infection from organized commercial sex workers (FCSWs) and 20 (25%) mostly from unorganized or less commonly with casual sex partners (table. 1). Six (6.2%) males acquired HIV through blood transfusion, in most instances transfused in rural areas where HIV screening is done by HIV spot tests. These rapid tests are known to miss the early sero-converters[4]. Only 1 married male gave history of having sex with a male sex worker at

Bombay. In rest 10 (10.3%) cases the source and mode of infection could not be ascertained (table 1). These patients gave vague past history and denied high risk behaviour neither doubted their wives´ chastity. Interestingly 26 (26.8%) young males (9 recently married) got infected just before their marriages in 1 or 2 sexual encounters with commercial sex workers when they wanted to rehears the first night with their brides (table 2). Sixty of 80 (75%) married males did not inform their wives and continued having unprotected sex with their wives even after knowing their HIV positive status, if they were tested positive for HIV outside and were not counseled properly. Majority (92%) males did not use condoms while visiting CSWs but 3 patients got infected even though they gave history of protected sex. In others improper condom use and quality of barrier were suspected.

Table 1. Most probable source of HIV infection in Indian males (n=97)

Source of Infection	Number
Female Commercial Sex Workers	60 (61.8%)
CSWs of Bombay (India)	35 (58.3%)
CSWs of Thailand	5 (8.3%)
CSWs of other towns of India	20 (33.3%)
Casual sex partners	20 (20.6%)
Blood Transfusion	6 (6.2%)
Not Known	10 (10.3%)
	97 (100%)

Table 2. Number of hetero-sexual encounters which resulted in HIV infection (80 * heterosexual and 1 bisexual)

Number of unprotected sexual exposures	HIV transmission rate
1 encounter only * *	41/81 (56.6%)
2-5 encounters	23/81 (28.4%)
Multiple (>5) encounters	17/81 (21.0%)

*9 were recently married, most probably after getting HIV infected.

* * One mane had sex with man (MSM) only once and possibly got HIV infected

§ Male patients in whom blood transfusion and no obvious source of infection could be ascertained are not included.

Table 3. Anti-HIV antibody pattern in paired blood and semen plasma samples of male partners

Parameter	Serum	Semen
Antibody positive in EIA	49	47 (95.9%)
Antibody pattern in RIBA/LIA		
gp120	49	37 * (75.5%)
gp41	49	49 (100%)
p31	49	49 (100%)
p26	49	37 * (75.5%)
Antigen detection		
p24 antigen	15 (30.6%)	10 (66.6%)

* The positive samples were not the same

The progression of disease was significantly rapid and higher in women than their male counterparts. The Highly active antiretroviral therapy was not accessible to common man by this time in India. The average life span after the diagnosis of HIV infection in Indian males without any specific treatment was 4.5 ± 3.5 yr but ranged from as shorter as 3 years to as long as more than 8 years (retrospective analysis). While in women mean of total life span was 3.5 ± 2.0 yr which ranged from 1 year to 5 years from the possible date of exposure to fatal outcome. As far as period of HIV infection and development of first clinical manifestation of AIDS was concerned, it ranged from 1 to 6 years and 1 to 4 years, respectively, in males and females. We could not trace the antecedents of female sex workers who were suspected to transmit HIV infection to these male patients. Most of the HIV infected women were malnourished as compared to their male spouses, probably due to ethnic male dominance.

The first clinical manifestation in 70% of our patients was of pulmonary tuberculosis followed by diarrhoea off and on (50%), fever (30%), loss of memory or abnormal behaviour (10%) and central nervous system infections in 5 patients (other clinical details not shown here). Weakness, loss of appetite and fear of imminent death was present in all except one patient. This 35 year old male patient did not worry much about the final outcome of disease even though his wife died and both the sons (7 year and 5 year) were HIV positive. He in fact smoked and drank more often after knowing his HIV status and continued to have sex with other women, in spite of repeated counseling. He is now on HAART.

The study indicates wide variation in the pattern of transmissibility of HIV from male to female and vice-versa as reported by others[5-7]. However, commonest mode of transmission was heterosexual route as reported earlier in the literature[1,8,9]. In several cases only one sexual encounter resulted in HIV transmission from a HIV positive women to young adult males, while others had as many as ~100 sexual contacts to get (probably repeatedly) HIV infected. However, in more than half adolescents and young adults transmission occurred through single-sex who had sex with commercial sex workers for gaining sexual experience before their marriages. Otherwise also in more than 75% cases transmission took place in less than 5 sex acts (Table 2). It is important that only 5 patients were Muslims and rest were Hindus or Sikhs. It provides ample evidence that circumcision might have played important role in minimizing the risk of HIV transmission. None of the 26 young patients who acquired HIV infection after single sexual act was a Muslim. It may be one major reason that during first few sexual acts uncircumcised prepuce gets retracted and causes minor injuries at the junction of prepuce and mucosa thus facilitating entry of this virus[6]. Moreover since most of these pre-marriage sex experiences were done with commercial sex workers who have comparatively more viral particles in vagina due to repeated sex injuries and deposition of HIV infected semen on the vaginal mucosa. Thus the findings of high transmission rate of HIV from FCSWs to their male clients were on expected lines.

It is interesting that six married husbands were HIV positive but their wives remained HIV negative inspite of having unprotected sex numerous times unknowingly. This difference in transmission rate between wives and CSWs could be due to the fact that wives have less sexual exposure thus less virus challenge and also keep better vaginal hygiene than CSWs. There may also be some psycho-sexual reasons in males after having sex with CSW[10,11].

Interestingly out of 49 males whose semen samples were tested for anti-HIV antibodies all were reactive for gp41 and gp31 antigens. However, only 75% were reactive for gp120 and only two thirds excreted detectable p24 antigen.

Only 3 women were alleged by their in-laws for having premarital sexual relations with other persons. They were suspected to infect their innocent husbands. However, no women admitted to have pre-or extra-marital relationship. In this part of world having pre-or extra-marital sexual relationship is social crime for women, hence affirmative history of sex with a man other than her husband was neither expected nor it could be obtained.

Rapid progression of AIDS in Indian women was not surprising, because average Indian woman care more for her husband and children than herself. The care is not only in terms of attention but also in dietary intake. Though women work more and require more energy inputs their intake is less as compared to their male counterparts in the family and particu-

larly for an ailing husband. This trend is particularly more pronounced for HIV infected females, who are poorly looked after by their families as compared to their husbands. Due to poor nutrition and lack of hygienic food and shelter, particularly the dalit women, they progressed rapidly to full AIDS[6,8]. The dalits have no right to live with dignity and in Indian caste system. Their women folk are treated at par with animals and indeed worst then holy cow which have privilege to roam on the city road jeopardizing the lives of automobile drivers but the dalit women are humiliated, sexually abused and gagraped by criminals, often HIV positive[11] in front of their family members.

The Indian society is divided on the issue of legalizing the prostitution in India. Those who are prolegalization think that it will enable state health departments to properly examine, advise and treat STD & HIV in these women before they transmit STDs to their clients. But others think that this will work as spoil spot for this conservative society and more prostitutes will be produced and more young girls will be forced to this profession .

This study, therefore, emphasized more awareness in adolescents as well as married men to practice safe sex, if they can not avoid visiting commercial sex workers and need of pre and post-sex counseling clinics in red light areas. The study showed that majority of husbands do not share their HIV positive status with their wives and continue to have unsafe sex risking her life. Also majority of CSWs are forced in prostitution and progression of AIDS was significantly faster in women than men due to poor nutritional status and least priority for their anti-HIV treatment if male and children are also HIV infected in the family. For which more empowerment of women organizations is envisaged.

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